

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Donna Hui-Ing HWANG, and  
Domnica CERNASOV and Ralph MACCHIO

Confirmation No.: 7321

Application No.: 10/542,536

Examiner: SAROUSH, Layla

Filed: July 18, 2005

Group Art Unit: 1617

Attorney Docket No.: 3975.043

Customer Number: 30448

For: COSMETIC SELF-WARMING PRODUCTS

DECLARATION OF CO-INVENTOR DONNA HUI-ING HWANG UNDER 37 C.F.R.  
§1.132

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

I, Donna Hui-Ing Hwang, do declare:

1. I am a co-inventor of the subject matter claimed in the above-captioned application ("the Application").

2. I hold a Doctor of Philosophy, which I obtained in 1995 at the Rutgers University. Since 2001, I have been employed by Cory B.V. as Senior Research Scientist conducting research in investigation of new raw materials, products and technologies. My activities as a cosmetic developer during the last seven years are characterized by several highlights, and for some of these highlights my employer decided to apply for national and/or international patents.

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3. I have reviewed the Office Action mailed October 2, 2007 (hereinafter "Office Action") and the Examiner's assertions therein, as well as the cited references.

4. The claimed method discloses that the composition is "formulated to cause a raise in temperature of the skin by 4 to 8 K during cleansing compared to the starting surface temperature of the skin." Mackles WO discloses zeolites with silicon-rich zeolites with an Si:Al ratio of 1.1 to 0.1. Mackles WO uses VALFOR® 950 as the exemplary zeolite, *see* Mackles WO, Examples 1-7 on p. 13 -- 21. I am submitting the following testing, which demonstrates that the Mackles WO examples are simply not capable of producing the claimed temperature rise:

The comparative examples are as follows:

#### Comparative Example 1

100g of water was added to 45g of water-free, silicon-rich zeolite VALFOR® 950, which is used in each of the Examples in WO86/05389, and the temperature rise was measured. The same procedure was repeated with 45g of water-free, aluminum-rich zeolite MOLSIV® GMP4A, which falls within the claimed Si:Al ratio.

Temperature rise for VALFOR® 950 was  $4.1^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$  (Mackles WO).

Temperature rise for MOLSIV® GMP4A was  $7.2^{\circ}\text{C} \pm 0.6^{\circ}\text{C}$  (Claims).

#### Comparative Example 2

5 g of water were added to 45g of water-free, silicon-rich zeolite VALFOR® 950 and the temperature rise was measured. After 2 hours, 100 g of water were to the pre-treated 45g of VALFOR® 950. This same procedure was repeated with 45g of water-free, aluminum-rich zeolite MOLSIV® GMP4A.

5g temperature rise for VALFOR® 950 was  $1.2^{\circ}\text{C} \pm 0.31^{\circ}\text{C}$  (Mackles WO).

5g temperature rise for MOLSIV® GMP4A was  $1.9^{\circ}\text{C} \pm 0.33^{\circ}\text{C}$  (Claims).

100g temperature rise for VALFOR® 950 was  $3.4^{\circ}\text{C} \pm 0.41^{\circ}\text{C}$  (Mackles WO).

100g temperature rise for MOLSIV® GMP4A was  $6.0^{\circ}\text{C} \pm 0.34^{\circ}\text{C}$  (Claims).

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As noted in Comparative Example #1, when 100g of water are added to 45g of water-free VALFOR® 950, the temperature increase is  $4.1^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$ . The current disclosure described compositions using aluminum-rich zeolites, such as MOLSIV® GMP3A, *see* Specification, paragraph [0029] & [0035]. As noted in Comparative Example #2, when 100g of water are added to 45g of water-free MOLSIV® GMP3A, the temperature increase is  $7.2^{\circ}\text{C} \pm 0.6^{\circ}\text{C}$ . This is a significantly different temperature increase.

However, the compositions produced according to the current rejection could include up to 5 wt-% water as well as multivalent alcohols and polar solvents. Comparative Example #2 demonstrates the impact of adding as little as 5 g of water to the 45 mg samples of Comparative Example #1. The addition of 5 mg of water to the silicon-rich VALFOR® 950 resulted in a temperature increase of  $1.2^{\circ}\text{C} \pm 0.31^{\circ}\text{C}$ ; while the same addition to the aluminum-rich MOLSIV® GMP3A resulted in a temperature increase of  $1.9^{\circ}\text{C} \pm 0.33^{\circ}\text{C}$ .

However, the more important information is the impact that the presence of water has on the zeolites when they are exposed to significant amounts of water, such as those used during face washing. Thus, the wetted zeolites were allowed to stand for 2 hours before they were contacted by 100g of water. The addition of 100 mg of water to the pre-treated silicon-rich VALFOR® 950 resulted in a temperature increase of only  $3.4^{\circ}\text{C} \pm 0.41^{\circ}\text{C}$ ; while the same addition to the pre-treated aluminum-rich MOLSIV® GMP3A resulted in a temperature increase of  $6.0^{\circ}\text{C} \pm 0.34^{\circ}\text{C}$ .

These comparative examples demonstrate the best case temperature rise, because they deal with pure zeolite. Clearly, the composition produced by the suggested rejection, i.e. one using a zeolite equivalent to VALFOR® 950, is simply not capable of "rais[ing] in temperature of the skin by 4 to 8 K during cleansing compared to the starting surface temperature of the skin."

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5. In conclusion, it is my opinion that the cited references neither disclose nor suggest the claimed cosmetic preparation providing the claimed amount of heating. Furthermore, the cited references neither disclose nor suggest using "no polyvalent alcohols and polar solvents" in a self-heating cosmetic preparations that can create the claimed amount of heating.

6. I further state that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with my knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2/8/2008  
Date

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